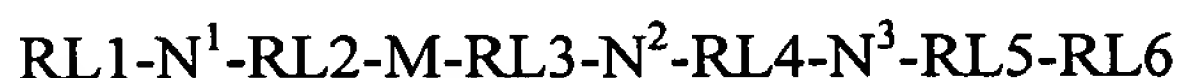


AMENDMENTS TO THE CLAIMS

1. – 12. (Canceled)

13. (Currently Amended) ~~A chemical structure with an affinity for a phospholipid~~ An isolated polypeptide, comprising a ~~molecule~~ sequence with the following formula (VII):



(VII)

wherein N^1 to N^3 each independently represent 1 to 4, independently selected, natural or non-natural, amino acids and wherein M is a peptide consisting of 1 to 100 natural or non-natural amino acids;

wherein RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu, wherein said ~~structure is linear or~~ polypeptide is cyclic.

14. (Currently Amended) The ~~chemical structure~~ isolated polypeptide according to claim 13, wherein N^1 represents three amino acids, N^2 represents four amino acids, and N^3 represents two amino acids.

15. (Currently Amended) The ~~chemical structure~~ isolated polypeptide according to Claim 13, wherein M is a peptide consisting of 33 natural or non-natural amino acids.

16. (Currently Amended) The ~~chemical structure~~ isolated polypeptide according to claim 13, wherein the structure of formula (VII) is a ~~peptide~~ polypeptide sequence selected from the peptide sequence from Arg124 to Asp171 of SEQ ID NO: 1, the peptide sequence from Arg25 to Glu72 of SEQ ID NO: 2, the peptide sequence from Lys100 to Glu147 of SEQ ID NO: 3, the sequence from Arg24 to Glu71 of SEQ ID NO: 4, the sequence from Arg97 to

Asp144 of SEQ ID NO: 5 or a modified sequence of these sequences provided that RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu.

17. – 18. (Canceled)

19. (Withdrawn; Currently Amended) The ~~chemical structure~~ isolated polypeptide according to Claim 13, further comprising a calcium site where the calcium ion is complexed by this site forms one of the ligands of the negatively charged phospholipid.

20. – 23. (Canceled)

24. (Withdrawn; Currently Amended) The method according to ~~claim 23~~ Claim 50, wherein the vector is a plasmid.

25. - 44. (Canceled)

45. (Currently Amended) The ~~chemical structure~~ polypeptide according to Claim 13, wherein said ~~structures having~~ polypeptide has an affinity for a phospholipid selected from a phosphatidylserine, a phosphatidylethanolamine, a phosphatidylinositol, a phosphatidic acid, and a cardiolipin.

46. – 49. (Canceled)

50. (Withdrawn; Currently Amended) A method for producing a ~~chemical structure~~ polypeptide as defined in Claim 13, comprising preparing a cDNA comprising a coding sequence of bases for said ~~chemical structure~~ polypeptide, inserting the cDNA in an appropriate expression vector, and transforming an appropriate host cell ~~for replicating the plasmid and~~ producing said ~~structure~~ polypeptide by translation of said cDNA.

51. – 59. (Canceled)

60. (Withdrawn) The method according to Claim 50, wherein the vector is a pGEX-2T vector.

61. – 64. (Canceled)

65. (Withdrawn) The method according to claim 50, wherein the appropriate host cell is *E. Coli*.

66. – 68. (Canceled)

69. (Currently Amended) A pharmaceutical composition comprising a ~~chemical~~ structure polypeptide as defined in Claim 13 and an inert material.

70. – 73. (Canceled)

74. (Withdrawn) A method of treating a thrombosis, tumor or inflammation with the pharmaceutical composition claimed in Claim 69.

75. – 79. (Canceled)

80. (Withdrawn; Currently Amended) A method for producing a material for covering thrombogenic biomaterial comprising incorporating a structure polypeptide as claimed in Claim 13.

81. – 83. (Canceled)

84. (Withdrawn; Currently Amended) A labelling compound comprising a structure polypeptide as defined in Claim 13 coupled with a labelling molecule.

85. – 88. (Canceled)

89. (Withdrawn) The compound according to Claim 84, wherein the labelling molecule is selected from a fluorescent molecule, the avidin-biotin complex, a radioelement, and a paramagnetic compound.

90. – 94 (Canceled)

95. (Withdrawn) A diagnostic kit comprising a compound according to Claim 84.

96. – 100 (Canceled)

101. (Withdrawn) The diagnostic kit according to Claim 95, further comprising an

adequate reagent enabling said labelling molecule to be detected.

102. – 106. (Canceled)

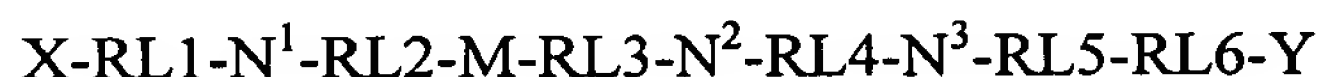
107. (Withdrawn; Currently Amended) A kit for analyzing and detecting negative charges at the surface of cells, comprising a ~~structure~~ polypeptide according to Claim 13, coupled with a tracer.

108. – 111. (Canceled)

112. (Withdrawn; Currently Amended) A kit for analyzing and detecting microvesicles in blood at the surface of cells, comprising a ~~structure~~ polypeptide according to Claim 13, coupled with a tracer.

113. – 115. (Canceled)

116. (New) An isolated polypeptide, consisting of a sequence with the following formula:



wherein N^1 to N^3 each independently represent 1 to 4, independently selected, natural or non-natural, amino acids and wherein M is a peptide consisting of 1 to 100 natural or non-natural amino acids;

wherein RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu; and

wherein X is a sequence of 9-11 amino acids and Y is a sequence of 14-19 amino acids.

117. (New) The isolated polypeptide according to claim 116, wherein N^1 represents

three amino acids, N² represents four amino acids, and N³ represents two amino acids.

118. (New) The isolated polypeptide according to Claim 116, wherein M is a peptide consisting of 33 natural or non-natural amino acids.

119. (New) The isolated polypeptide according to claim 116, wherein the structure of formula (VII) is a polypeptide sequence selected from the peptide sequence from Arg124 to Asp171 of SEQ ID NO: 1, the peptide sequence from Arg25 to Glu72 of SEQ ID NO: 2, the peptide sequence from Lys100 to Glu147 of SEQ ID NO: 3, the sequence from Arg24 to Glu71 of SEQ ID NO: 4, the sequence from Arg97 to Asp144 of SEQ ID NO: 5 or a modified sequence of these sequences provided that RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu.

120. (New) The isolated polypeptide according to Claim 116, further comprising a calcium site where the calcium ion is complexed by this site forms one of the ligands of the negatively charged phospholipid.

121. (New) The polypeptide according to Claim 116, wherein said polypeptide has an affinity for a phospholipid selected from a phosphatidylserine, a phosphatidylethanolamine, a phosphatidylinositol, a phosphatidic acid, and a cardiolipin.

122. (New) A method for producing a polypeptide as defined in Claim 116, comprising preparing a cDNA comprising a coding sequence of bases for said polypeptide, inserting the cDNA in an appropriate expression vector, and transforming an appropriate host cell producing said polypeptide by translation of said cDNA.

123. (New) The method according to Claim 122, wherein the vector is a plasmid.

124. (New) The method according to Claim 122, wherein the vector is a pGEX-2T vector.

125. (New) The method according to claim 122, wherein the appropriate host cell is *E. Coli*.

126. (New) A pharmaceutical composition comprising a polypeptide as defined in Claim 116 and an inert material.

127. (New) A method of treating a thrombosis, tumor or inflammation with the pharmaceutical composition claimed in Claim 126.

128. (New) A method for producing a material for covering thrombogenic biomaterial comprising incorporating a polypeptide as claimed in Claim 116.

129. (New) A labelling compound comprising a polypeptide as defined in Claim 116 coupled with a labelling molecule.

130. (New) The compound according to Claim 129, wherein the labelling molecule is selected from a fluorescent molecule, the avidin-biotin complex, a radioelement, and a paramagnetic compound.

131. (New) A diagnostic kit comprising a compound according to Claim 129.

132. (New) The diagnostic kit according to Claim 131, further comprising an adequate reagent enabling said labelling molecule to be detected.

133. (New) A kit for analyzing and detecting negative charges at the surface of cells, comprising a polypeptide according to Claim 116, coupled with a tracer.

134. (New) A kit for analyzing and detecting microvesicles in blood at the surface of cells, comprising a polypeptide according to Claim 116, coupled with a tracer.

135. (New) The isolated polypeptide according to Claim 116, wherein

X is selected from the group consisting of TPAQFDADEL (residues 114-123 of SEQ ID NO: 1), DERADAETL (residues 16-24 of SEQ ID NO: 2), PPAVFDAKQL (residues 90-

99 of SEQ ID NO: 3), NAMEDAQTL (residues 15-23 of SEQ ID NO: 4), and PTVLYDVQELQ (residues 1-11 of SEQ ID NO: 5); and

Y is selected from the group consisting of TSGDFRNALLSLAKG (residues 172-186 of SEQ ID NO: 1), LTGKFEKLIVALMKPSRLY (residues 73-91 of SEQ ID NO: 2), TSGDFRKALLTLADG (residues 148-162 of SEQ ID NO: 3), LSGNFEQVIVGMMT (residues 72-85 of SEQ ID NO: 4), and TSFMFQRVLVSLSAGG (residues 145-160 of SEQ ID NO: 5).

136. (New) The isolated polypeptide according to Claim 116, wherein X is the polypeptide sequence TPAQFDADEL (residues 114-123 of SEQ ID NO: 1) and Y is the polypeptide sequence TSGDFRNALLSLAKG (residues 172-186 of SEQ ID NO: 1).

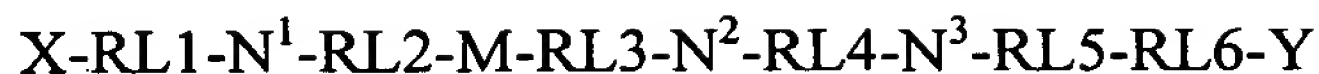
137. (New) The isolated polypeptide according to Claim 116, wherein X is the polypeptide sequence DERADAETL (residues 16-24 of SEQ ID NO: 2) and Y is the polypeptide sequence LTGKFEKLIVALMKPSRLY (residues 73-91 of SEQ ID NO: 2).

138. (New) The isolated polypeptide according to Claim 116, wherein X is the polypeptide sequence PPAVFDAKQL (residues 90-99 of SEQ ID NO: 3) and Y is the polypeptide sequence TSGDFRKALLTLADG (residues 148-162 of SEQ ID NO: 3).

139. (New) The isolated polypeptide according to Claim 116, wherein X is the polypeptide sequence NAMEDAQTL (residues 15-23 of SEQ ID NO: 4) and Y is the polypeptide sequence LSGNFEQVIVGMMT (residues 72-85 of SEQ ID NO: 4).

140. (New) The isolated polypeptide according to Claim 116, wherein X is the polypeptide sequence PTVLYDVQELQ (residues 1-11 of SEQ ID NO: 5) and Y is the polypeptide sequence TSFMFQRVLVSLSAGG (residues 145-160 of SEQ ID NO: 5).

141. (New) An isolated polypeptide, consisting of a sequence with the following formula:

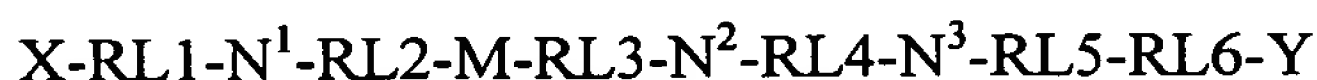


wherein N^1 to N^3 each independently represent 1 to 4, independently selected, natural or non-natural, amino acids and wherein M is a peptide consisting of 1 to 100 natural or non-natural amino acids;

wherein RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu; and

wherein X is the polypeptide sequence TDFPGFDERADAETL (residues 10-24 of SEQ ID NO: 2) and Y is the polypeptide sequence LTGKFEKLIVALMKPSRLY (residues 73-91 of SEQ ID NO: 2).

142. (New) An isolated polypeptide, consisting of a sequence with the following formula:



wherein N^1 to N^3 each independently represent 1 to 4, independently selected, natural or non-natural, amino acids and wherein M is a peptide consisting of 1 to 100 natural or non-natural amino acids;

wherein RL1, RL2, and RL3 are independently selected from Lys, Arg or Orn; RL4 and RL6 are independently selected from Asp or Glu; and RL5 is independently selected from Ser, Thr, Asp, or Glu; and

wherein X is the polypeptide sequence KAASEFNAMEDAQTLL (residues 9-23 of

SEQ ID NO: 4) and Y is the polypeptide sequence LSGNFEQVIVGMMT (residues 72-85 of
SEQ ID NO: 4).

SUPPORT FOR THE AMENDMENTS

Claims 1-12, 17-18, 20-23, 25-44, 46-49, 51-59, 61-64, 66-68, 70-73, 75-79, 81-83, 85-88, 90-94, 96-100, 102-106, 108-111, and 113-115 have been canceled.

Claims 13-16, 19, 24, 45, 50, 69, 80, 84, 107, and 112 have been amended.

Claims 116-142 have been added.

The amendment of Claims 13-16, 19, 24, 45, 50, 69, 80, 84, 107, and 112 is supported by the corresponding claims as originally filed. New Claims 116-142 are supported by original Claims 13-16, 19, 24, 45, 50, 69, 80, 84, 107, and 112, as well as the specification as originally filed including Figure 6A-D.

No new matter has been added by the present amendment.